

CLAIMS

1. A process for the production of a resin composition comprising 100 parts by weight of an aromatic polycarbonate (Component A) and 0.01 to 50 parts by weight of a silicate filler (Component B), wherein,

(I) Component B being a silicate filler prepared by introducing at least one compound (Component B-1) selected from (i) an organosilicon compound (Component B-1-i) containing a hydrolyzable group and/or a hydroxyl group bonded to a silicon atom and (ii) an organic titanate compound (Component B-1-ii) into a lamellar silicate (Component B-2) having an cation exchange capacity of 50 to 200 milliequivalents/100 g,

(II) the process comprising reacting a polymer precursor of Component A by means of an interfacial polycondensation reaction in the presence of Component B and in the substantial absence of a polymerization catalyst.

2. The process of claim 1, wherein the polymer precursor is a product obtained by reacting a dihydric phenol and a carbonate precursor which lead to a structural unit of Component A, in the presence of an acid binder, an organic solvent and water.

3. The process of claim 1, wherein Component B is a silicate filler obtained by dispersing Component B-2 in a polar solvent and then adding Component B-1.

4. The process of claim 1, wherein Component B-2 is a lamellar silicate having an average particle diameter of at least 0.1 μm but less than 5 μm , said average

particle diameter being a particle diameter corresponding to an accumulation degree of 50 % in particle diameters measured by a laser diffraction scattering method.

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5. The process of claim 1, wherein Component B-1-i is an organosilicon compound of the following formula (I),

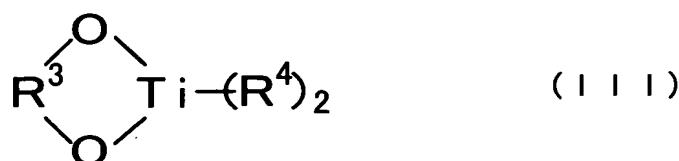


10 wherein n is an integer of 1 to 3, R is a monovalent organic group having 2 to 30 carbon atoms, which may contain a hetero atom, X is a hydrolyzable group or a hydroxyl group, each of X's in a quantity of n may be the same as, or different from, the other or 15 every other and each of R in an quantity of 4-n may be the same as, or different from, the other or every other.

20 6. The process of claim 1, wherein Component B-1-ii is at least one organic titanate compound selected from the group consisting of compounds of the following formulae (II), (III) and (IV),



25 in the formula (II), R¹ is an alkyl group having 1 to 6 carbon atoms, R² is a monovalent organic group having 4 to 20 carbon atoms and m is an integer of 1 to 3,



in the formula (III), R³ is a divalent organic group having 1 to 6 carbon atoms and R⁴ is a monovalent organic group having 4 to 20 carbon atoms,



5 and in the formula (IV), R⁵ is a monovalent organic group having 1 to 20 carbon atoms and R⁶ is an alkyl group having 4 to 20 carbon atoms.

7. 10 The process of claim 1, wherein Component B has an organic content of 0.1 to 50 % by weight.

8. 15 The process of claim 1, wherein a mixture of Component B with the polar solvent are added to the polymer precursor for Component A, and then the interfacial polycondensation reaction is carried out.

9. 20 The process of claim 1, wherein the interfacial polycondensation reaction is carried out in an emulsified state.

10. The process of claim 1, which comprises the steps of

25 (I) reacting a dihydric phenol and a carbonate precursor, which lead to a structural unit for Component A, in the presence of an acid binder, an organic solvent and water to obtain a polymer precursor (step-i),

(II) adding a mixture of Component B with a polar solvent to the thus-obtained polymer precursor to obtain a liquid mixture (step-ii),

30 (III) causing a shear force to act on the thus-obtained liquid mixture to bring said liquid mixture into an emulsified state and then reacting the polymer

precursor by means of interfacial polycondensation in the emulsified state (step-iii), and

(IV) separating the organic solvent and water from a mixture obtained by the reaction, to obtain a 5 resin composition in a solid state (step-iv).

11. The process of claim 10, which comprises the step of adding a monohydric phenol as a terminal stopper to the polymer precursor (step- α) after the step-i and 10 before the step-iii.

12. The process of claim 10, wherein the step-iii is a step in which the liquid mixture that is brought into an emulsified state is caused to undergo interfacial 15 polycondensation reaction without substantially causing the shear force to act thereon.

13. The process of claim 10, wherein the step-iv is a step in which the organic solvent and water are 20 removed from the mixture obtained after the reaction and an isolated residue is washed with water to obtain the resin composition in a solid state.

14. A resin composition produced by the process of 25 claim 1.

15. The resin composition of claim 14, which satisfies the following expression,

$$400X + 1,500 \leq Y \leq 1,400X + 1,500 \quad (1)$$

30 wherein X is a content, expressed by a unit of % by weight, of an inorganic compound calculated from a weight ratio of an ashed residue after the resin composition is treated at 600°C in an electric furnace for 6 hours, Y is a storage elastic modulus, expressed

by a unit of MPa, of the resin composition at 40°C.